CLAIM AMENDMENTS

1-10. (Cancelled)

11. **(Currently Amended)** A method for controlling an internal combustion engine having an intake tract, an exhaust tract incorporating a three-way catalytic converter, and a cylinder connected to the intake tract via a gas inlet valve and connected to the exhaust tract via a gas outlet valve, an injection valve that meters-in fuel to the cylinder, and a post-cat oxygen sensor disposed in the exhaust tract downstream of the three-way catalytic converter, comprising:

determining a mass of fuel supplied to the cylinder as a function of a load variable;

measuring a post-catalytic converter exhaust gas by the post-cat oxygen sensor;

generating a post-cat oxygen sensor measurement signal;

comparing the post-cat oxygen sensor measurement signal with a characteristic post-cat oxygen sensor measurement signal **representing a predefined residual oxygen component**;

determining if the generated post-cat oxygen sensor measurement signal is representative of the characteristic post-cat oxygen sensor measurement signal based on the comparison;

if the generated post-cat oxygen sensor measurement signal is determined to be representative of the characteristic post-cat oxygen sensor measurement signal:

calculating a gradient of the post-cat oxygen sensor measurement signal based on at least two values of the post-cat oxygen sensor measurement signal; and

determining an individual mass of fuel metered-in to the cylinder**[[:]]** as a function of **[[a]] the calculated** gradient of the **at least two values of the** post-cat oxygen sensor measurement signal**; ~~or~~**

~~**as a function of a minimum value of the post-cat oxygen sensor measurement signal**~~

~~**wherein the post-cat oxygen sensor measurement signal represents a predefined residual oxygen component if the generated post-cat oxygen sensor measurement signal is determined to be representative of the characteristic post-cat oxygen sensor measurement signal;**~~

determining a corrected mass of fuel supplied as a function of:

the mass of fuel supplied, and

the individual mass of fuel metered-in if the generated post-cat oxygen sensor measurement signal is determined to be representative of the characteristic post-cat oxygen sensor measurement signal; and

generating an actuating signal that controls the injection valve as a function of the corrected mass of fuel supplied.

12. (Previously Presented) The method as claimed in claim 11, wherein the individual mass of fuel metered-in to the cylinder is determined if the post-cat oxygen sensor measurement signal is below a predefined first threshold.

13. (Previously Presented) The method as claimed in claim 11, wherein the individual mass of fuel metered-in to the cylinder is predefined such that approximately 50 % of the oxygen storable in the three-way catalytic converter remains on the three-way catalytic converter.

14. (Previously Presented) The method as claimed in claim 11, the individual mass of fuel metered-in to the cylinder is determined as a function of an estimated value of the current oxygen storage capacity of the three-way catalytic converter.

15. (Previously Presented) The method as claimed in claim 11, herein the internal combustion engine comprises a plurality of cylinders.

16. (Previously Presented) The method as claimed in claim 11, wherein the corrected mass of fuel supplied is determined as a function of the mass of fuel supplied and the individual mass of fuel metered-in.

17. **(Currently Amended)** A method for controlling an internal combustion engine having an intake tract, an exhaust tract incorporating a three-way catalytic converter, and at least one cylinder connected to the intake tract via a gas inlet valve and connected to the exhaust tract via a gas outlet valve, an injection valve that meters-in fuel to the relevant cylinder, and a post-cat oxygen sensor disposed in the exhaust tract downstream of the three-way catalytic converter, comprising:

determining a mass of fuel supplied to the relevant cylinder as a function of a load variable;

determining if a measurement signal of the post-cat oxygen sensor is characteristic of a post-cat oxygen sensor measurement signal response;

if the post-cat oxygen sensor measurement signal is determined to be characteristic of a predefined residual fuel component:

calculating a gradient of the post-cat oxygen sensor measurement signal based on at least two values of the post-cat oxygen sensor measurement signal; and

determining an individual mass of fuel reduced as a function of **[[a]] the calculated gradient of the at least two values of the** post-cat oxygen sensor measurement signal ~~**gradient or as a function of a maximum value of the post-cat oxygen sensor measurement signal**~~ if the post-cat oxygen sensor measurement signal is determined to be characteristic of a predefined residual fuel component;

determining a corrected mass of fuel supplied as a function of the mass of fuel supplied and, if the post-cat oxygen sensor measurement signal is determined to be characteristic of a predefined post-cat oxygen sensor measurement signal response, the individual mass of fuel to be reduced; and

generating an actuation signal that controls the injection valve as a function of the corrected mass of fuel supplied.

18. (Previously Presented) The method as claimed in claim 17, wherein the individual mass of fuel reduced is determined if the post-cat oxygen sensor measurement signal exceeds a predefined second threshold value.

19. (Previously Presented) The method as claimed in claim 17, wherein the individual mass of fuel reduced is predefined such that approximately 50 % of the oxygen storable in the three-way catalytic converter is stored after the reduced mass of fuel has been metered-in to the cylinder.

20. (Previously Presented) The method as claimed in claim 17, wherein the individual mass of fuel reduced is determined as a function of an estimated value of the current oxygen storage capacity of the three-way catalytic converter.

21. **(Currently Amended)** A system for controlling an internal combustion engine having an intake tract, an exhaust tract incorporating a three-way catalytic converter, and at least one cylinder connected to the intake tract via a gas inlet valve and connected to the exhaust tract via a gas outlet valve, an injection valve that meters-in fuel to an associated cylinder, comprising:

a post-cat oxygen sensor arranged in the exhaust tract downstream of the three-way catalytic converter that generates a post-cat oxygen sensor signal representative of a residual oxygen component of a post-cat exhaust gas of the engine; and

a controller that:

determines a mass of fuel to be supplied to the associated cylinder as a function of a load variable,

measures a post-catalytic converter exhaust gas by the post-cat oxygen sensor,

generates a post-cat oxygen sensor measurement signal,

compares the post-cat oxygen sensor measurement signal with a characteristic post-cat oxygen sensor measurement signal **representing a predefined residual oxygen component**,

determines if the generated post-cat oxygen sensor measurement signal is representative of the characteristic post-cat oxygen sensor measurement signal based on the comparison,

if the generated post-cat oxygen sensor measurement signal is determined to be representative of the characteristic post-cat oxygen sensor measurement signal:

calculates a gradient of the post-cat oxygen sensor measurement signal based on at least two values of the post-cat oxygen sensor measurement signal; and

determines an individual mass of fuel metered-in to the cylinder**[[:]]** as a function of **[[a]] the calculated** gradient of the **at least two values of the** post-cat oxygen sensor measurement signal**, ~~or~~**

~~**as a function of a minimum value of the post-cat oxygen sensor measurement signal wherein the post-cat oxygen sensor measurement signal represents a predefined residual oxygen component if the generated post-cat oxygen sensor**~~

~~measurement signal is determined to be representative of the characteristic post-cat oxygen sensor measurement signal,~~

determines a corrected mass of fuel supplied as a function of:

the mass of fuel supplied, and

the individual mass of fuel metered-in if the generated post-cat oxygen sensor measurement signal is determined to be representative of the characteristic post-cat oxygen sensor measurement signal, and

generates an actuating signal that controls the injection valve as a function of the corrected mass of fuel supplied.

22. (Previously Presented) The system as claimed in claim 21, wherein the corrected mass of fuel supplied is determined as a function of the mass of fuel supplied and the individual mass of fuel metered-in.